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WATCHING THE WEATHER WITH UNCLE SAM

A radio talk by Welby R. Stevens, assistant forecaster, United States Weather Bureau, the last of a series of ten talks delivered through Station WRC and 32 other stations associated with the National Broadcasting Company, February 5, 1930.

After all the reports have been received, the data entered and the necessary lines drawn on the weather charts, the forecaster must make a great number of deductions which will materially affect the conduct of business in both the country and the city, and occasionally mean the saving of human lives.

The first of these deductions is to locate where the center of the HIGHS and LOWS will be 12, 24, and 36 hours hence. This is accomplished by noting their previous direction and velocity of movement, the magnitude, velocity and direction of movement of the 12 hour pressure changes, and the direction and velocity of the upper winds. The forecaster is familiar with the normal movements of the various types of HIGHS and LOWS and is able to determine in most cases quite accurately how these various factors will deflect them from their normal paths.

The next step is to determine whether the distribution of temperature and precipitation around the centers of the HIGHS and LOWS will be changed when they reach the predicted locations. For example, approach to a large body of water or a range of mountains will exert a great modifying influence which must always be taken into consideration.

One of the most important things that a forecaster must decide, especially during the early and latter parts of the growing season, is whether a change to considerably colder weather will be accompanied by conditions favorable for the formation of frost. The problem is complicated because frost formation not only requires low temperatures, but also very little wind movement and cloudless sky.

It is very necessary to determine whether a LOW is going to decrease or increase considerably in intensity. If it increases precipitation will almost certainly fall over a wider area, the change to colder following its passage will usually be greater, more abrupt, and extend farther to the south. When a LOW is increasing and approaching either the coast or the Great Lakes, it is almost always necessary to send out storm warnings for the benefit of shipping interests.

In the last few years, coincident with the great expansion in air traffic, the forecaster has had more burdens placed upon him. Do you expect fog at New York City this afternoon? is an example of questions he must answer almost daily. Or, if it is foggy when the question is asked he must decide when it will dissipate. If the sky is overcast the aviator wants to know the height of the clouds, and whether there is any likelihood that it will clear in the next few hours. He also wants information about the visibility, and whether there is any chance of thunderstorms or dangerous shifting winds along his route.

The constantly increasing responsibility heaped upon the shoulders of the weather forecaster is a natural outgrowth of the economic development of our country, so he has every reason to expect that more and more demands will be made upon him in the future.

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This is the last of the series on Watching the Weather with Uncle Sam. We hope that you have found the talks both interesting and instructive.